

# **Public Health Assessment of Genetic Tests for Screening and Prevention**

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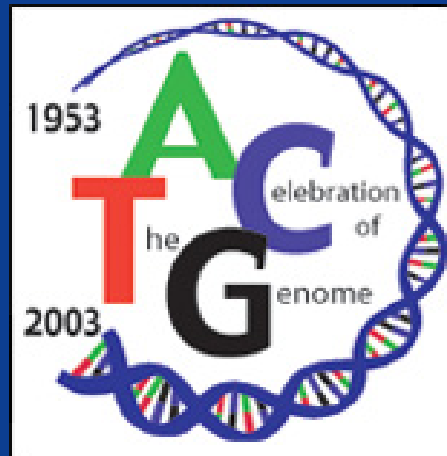
**CDC Office of Genomics and Disease Prevention**

# Course Objectives

- Issues related to the evaluation and utilization of genetic tests
- Components of systematic evaluation of genetic tests
- Approaches to data collection, analysis, integration and reporting

# “Welcome to the Genomic Era”

Guttmacher and Collins, NEJM 2003;349:996



**Genomics and the Future of Public Health Symposium**  
CDC, Roybal Campus, Auditorium A & B  
8:30 - 4:00pm, May 5, 2003

**The Human Genome Project is done.**

**PUBLIC HEALTH**  
Join us to discover the implications for public health and disease prevention.

**PROGRAMS**

**Speakers include:**  
Julie Gerberding  
Francis Collins  
David Satcher  
William Roper  
Maxine Hayes  
Toby Citrin

**REGISTER TODAY**  
Registration is FREE and open to all.  
CME/CEU's Continuing education credits will be offered based on the number of hours of instruction  
<http://www.cdc.gov/genomics/events/special2.htm>

**RESEARCH**

**CDC**

“DNA Changed the World: Now What?”  
NY Times, February 25, 2003



# “Genetic Defect Doubles Colon Cancer Risk”

Laken SJ et al. Nat Genetics 1997;17:79-83.

- “Researchers have found a new genetic defect present in one of every 17 American Jews that doubles a person's colon cancer risk.” **The good news is that scientists have developed a blood test, available for \$200, that can detect this genetic defect. The test is advisable for everyone in the Ashkhenazi population, whether they have a family history of colon cancer or not.”**
- <http://www.preventcancer.org/coloncancer.html>



# Genomics and The Public Health Perspective

- Population focus
- Prevention
- Evidence-based
- Assessment
- Policy
- Assurance & Evaluation



# Barriers to Translation of Genomics into Population Health Benefits

- Lack of Population Level Data
  - 30,000 genes
- Lack of an Evidence-Based Process for Integration of Genomics into Practice
  - 1000+ clinical tests
- Lack of Readiness of the Health Care and Public Health Systems

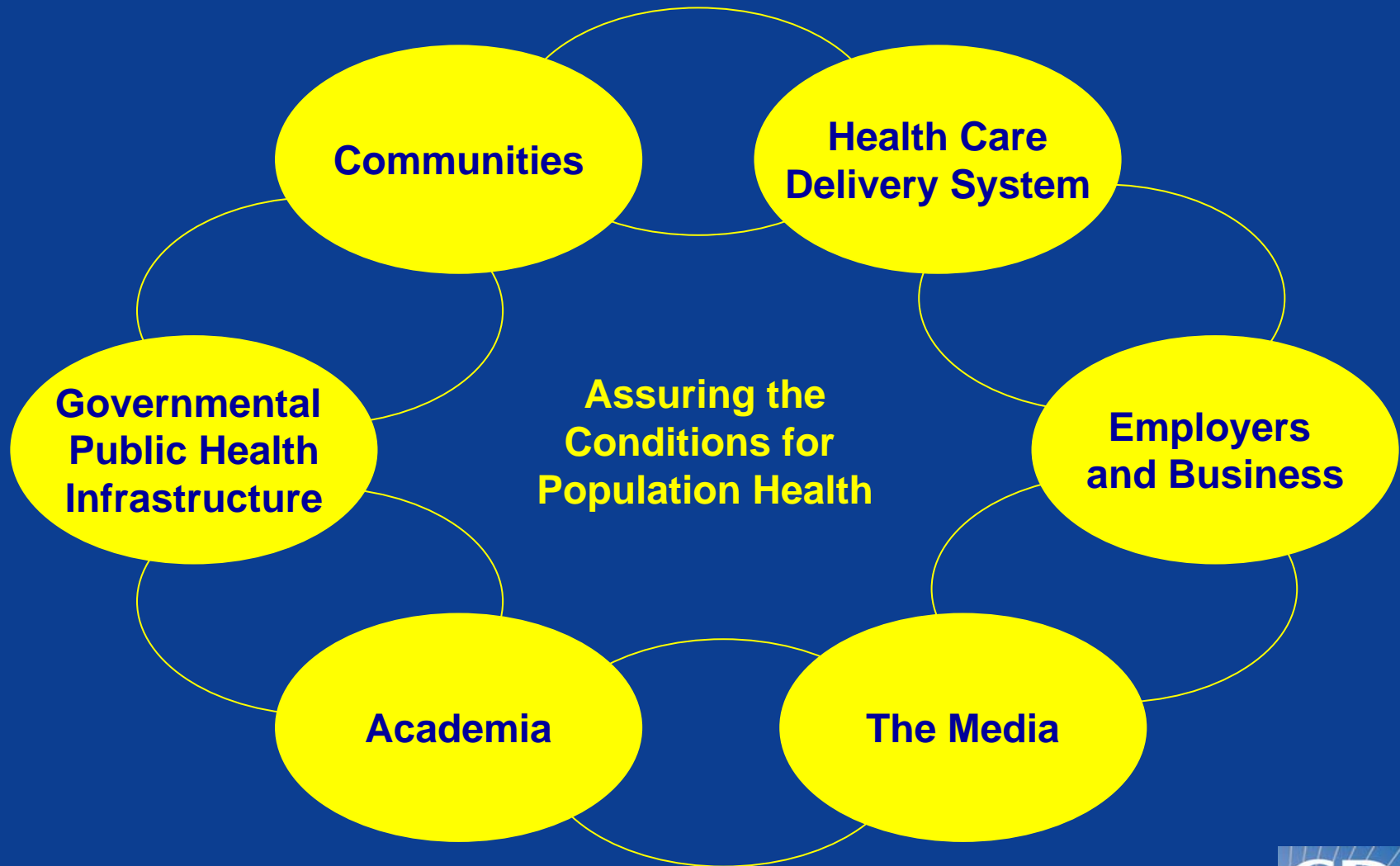
# **"Clinical Research to Clinical Practice — Lost in Translation?"**

C. Lenfant NEJM 2003;349:868

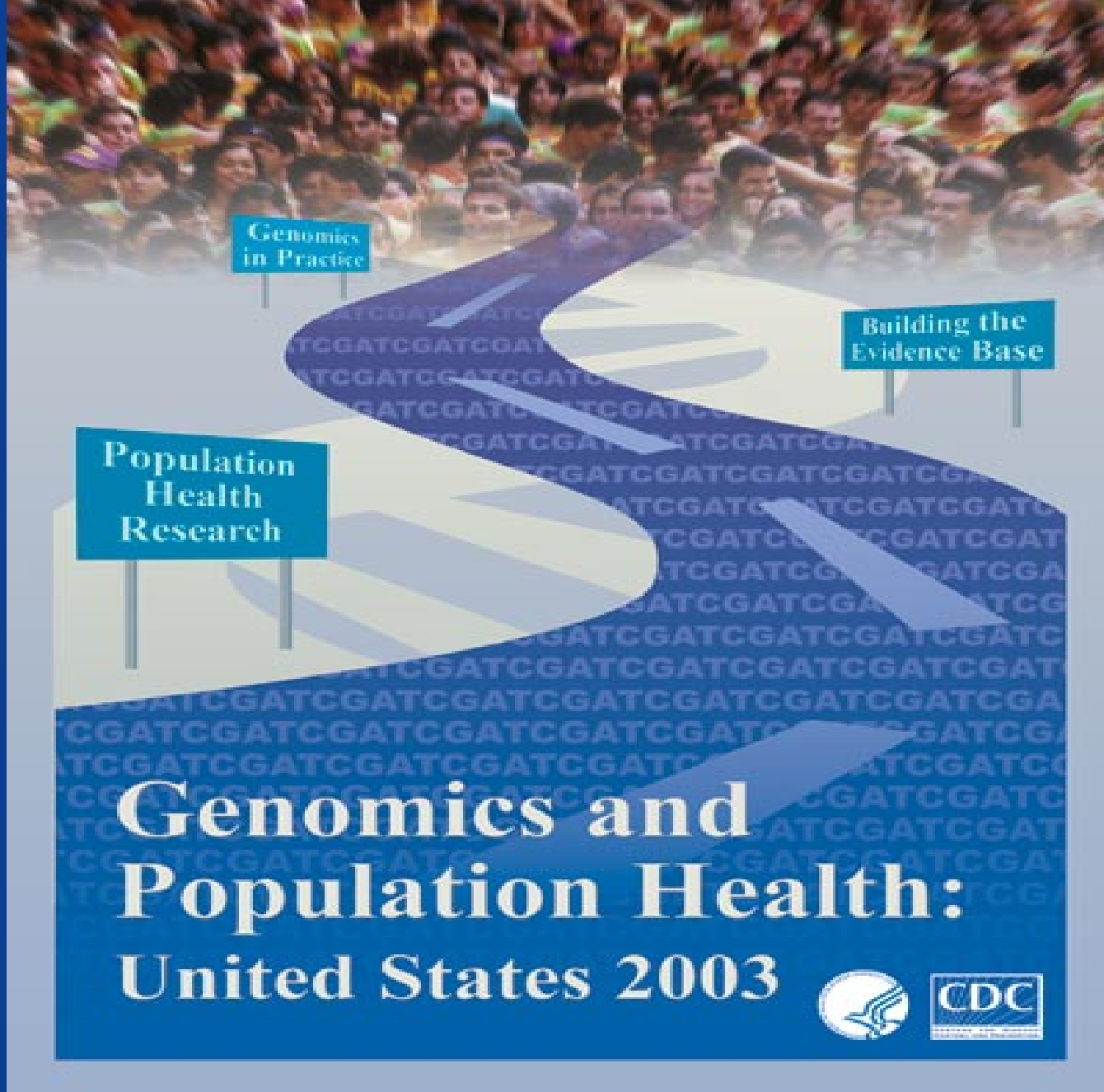
- < 33% of patients with coronary artery disease are prescribed aspirin

**"Let's be realistic: If we didn't do it with aspirin, how can we expect to do it with DNA?"**

# The Future of the Public's Health in the 21<sup>st</sup> Century (IOM, 2003)







# Thank you!

- Office of Genomics and Disease Prevention
- Foundation for Blood Research
- Distinguished speakers
- Participants